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B.A.R.G. NEWS

Official Newsletter of the Ballarat Amateur Radio Group. Inc. #6953T
ABN 44 247 200 143
VOLUME 26 ISSUE 4 **MAY 2003**

PRESIDENT: Gordon Cornell VK3FGC
SECRETARY: John Kennedy VK3AIG
TREASURER: Bob Terrill VK3BNC

NEXT MEETING - **FRIDAY 30 MAY**
At 7.30 pm

FROM THE COMMITTEE

At the May committee meeting, correspondence was received to the 5th Region 3 ARDF Championships to be held in Ballarat from November 28 – December 5th 2003.
There is a request for BARG to help in the running of these championships. The committee has agreed that the Club will help. This will involve transport to and from Melbourne Airport, assisting setting up on the two contest days, setting up of a HF station at Ballarat University, helping with BBQ and the opening ceremony and possible help with interpreters as we should have competitors from Japan, Korea, China, Mongolia, New Zealand and Australia. Also possible USA, Canada & Ukraine.

Please note the dates in your diary and be prepared to help.

DATES

7.30 pm. Note the new starting time for the Autumn/Winter period

COMMITTEE please note that meetings (3rd Wednesday in the month) will also start at 7.30.

Friday Dining: The next Friday "Pub" Dinner is at the Burrumbeet Hotel Western Highway Burrumbeet 6.30 PM on Friday 23 May 2003. Let Bob VK3BNC if you and/or your partner are attending. Bob's phone no is 5339 5317.

George Fowler Memorial Auction: Sunday 1 June 03 at the clubrooms.
Lunch at 12.00 Noon and auction starts at 1.00 pm.
Remember: Bring your wallet and pick up the bargains.
Bring your friends and let other amateurs know of the day.
Bring any pre-loved gear you may be prepared to lose.
The clubrooms will be open on Saturday afternoon for setting up and accepting items.

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Ballarat HAMFEST date is the **first** Sunday in November (the weekend before the Melbourne Cup: as usual) **Sunday 2 November 2003.**
(Ed. This may not be the W/E of day light saving –Hooray- But I am not sure)
A sub-committee of Ian McDonald, Bob Terrill, John Kennedy & Gordon Cornell has been formed for this event.

NEW MEMBER

The Club welcomes a new member Bob Pitcher VK3NBV. Bob has lived in Ballarat for some time having come from the Hamilton area. Bob is also a member of WICEN. His partner's name is Gail.

GET WELL

The Club sends its best wishes to Doug VK3VBA who is now home after a knee operation. Doug is an apology for our next meeting but we hope that he will be up and about after a short period of convalescence.

Congratulations to Bob VK3BNC on receiving his National Service Medal in recent times. Many members may have seen his photo with Betty and Catherine King MHR, the Federal Member of Parliament for Ballarat, in a number of publications.

CONSTRUCTION PROJECTS

As mentioned in the last newsletter the construction of the attenuators have nearly finished with two already being tested. So now the next project is being considered.

There are two projects being considered.
1. a pre-amp for fox hunting
2. building a portable yagi for the same thing.

Club members should join the group - NO EXPERIENCE REQUIRED – LEARN ON THE JOB.
The club may access to a supply of old TV aerials to supply some good aluminium tube as well as some of the cheap "rolled" elements and "boom" of both aluminium & galvanised steel.

Trivia: *As an old ham reminded me "Insects have antennae; Radio people have aerials"*

BALLARAT AMATEUR RADIO GROUP

Minutes of Club Meeting 2 May 2003

Meeting opened by President Gordon at 1940 Hrs

Apologies VK3UR VK3LYD VK3YNB VK3CFH Michael Lomas

Minutes Moved DCG/HRZ That the minutes be accepted Carried

REPORTS

Financial,

Payments $52.00 PO Box
$ 39.00 Cable
$540.00 Insurance
$262.71 $Dick Smith
$18.00 Postage
Balance $5317.38

Convention a/c $430.70

Moved BNC/VBA That the report be received and accounts passed for payment. CARRIED

Technical Nil
Club Net o.k Western Zone More Numbers required
W.I.C.E.N. Successful exercise mars challenge 140 competitors
Queens Head Hotel 12 members attended good night
Next get together Burrumbeet Hotel 23 May
Amenities Nil

W.I.C.E.N. Net +- 3.600 2130 Hrs
Exams Nil
Banule Shire Case withdrawn
Castlemaine Convention Good day Well catered for Entry $8.00, $5.00 Senior card holders
Discussion on loss of part 70 cm freq

GENERAL BUSINESS

Sub Committee set up for next Convention Ian AXH. Bob BNC. Gordon FGC. John AIG
Gordon to confirm booking with showgrounds

Moved AXH/DCS George Fowler Auction
day be held Sunday 1 June. Lunch 1200Hrs Auction 1300 Hrs Carried

Radio Dish. Bob contacted group from Narrabri re dish. Will forward video for group to view. Grammar School have shown an interest will follow up for interest and possible site. A budget of $15,000 could be required

Moved VBA/DCS That Michael Lomas be appointed as club QSL manager Carried

Secretary to check on club lists re e-mail address
Secretary to write to past QSL manager to thank him for past services

Meeting closed 2042 Hrs

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THERE AIN'T NO JUSTICE IN THIS WORLD!!

It's funny how some people get credit for a device that really belongs partly to another 'unsung hero*.

Take the reflex Klystron for example, where everybody repeats the old story of its invention by the Varian brothers. It is true that they did conceive and develop the 'two cavity klystron*where the first cavity is used to bunch the electron stream and deliver power to the second cavity so that, if the wanted signal is fed to the first cavity a magnified version will appear at the second cavity. Being an amplifier if the output is coupled back to the input cavity we have an oscillator at microwave frequencies as well. But in the early days getting the two cavities to stay on the same frequency was not easy especially in a tossing ship or buffeted aircraft. The thing would get out of 'sync* and oscillations cease.

Enter Robert W Button of the Royal Navy Signal School who looked at the thing and devised a repeller electrode to replace the second cavity. Now with that held at a voltage considerably negative with respect to the potential of the cavity then a whole new event happened. The bunched electrons (remember the Applegate diagram?) would reverse their direction of travel and return to the cavity delivering up their power to the cavity. No amplification but definitely an oscillator and only ONE cavity so no detuning problems, plus the bonus of 'electronic tuning* for AFC purposes by adjusting the volts on the repeller. Developed in the USA as the Shepherd-Pierce, later to be renamed the 'reflex klystron* it became the standard device with the two-cavity klystron left to languish until needed for microwave power amplification but still no acknowledgement of Mr. Sutton.

Likewise with the development of the 'TR* cell for shielding the sensitive frequency changer crystal from the raw power of the magnetron in a radar. After a lot of trial (and mainly error) using two cavity klystrons for isolation, up pops the TR cell, as we know it today thanks to A.H.Cooke of the Clarendon Laboratories Oxford. He took a Sutton klystron and filled the cavity area with water vapour at a low pressure. Then when the power from the transmitter hit the cavity the immediate (almost) ionisation of the water vapour caused the device to go short-circuit and so protect the crystal, de-ionising immediately after the transmitter pulse to allow the returned signal to reach the mixer. To speed up the action he found that applying a high voltage low current supply to the device kept it in a state of 'almost ionised* so that it responded even quicker to the transmitter pulse. Again no credit to him and I suppose it is only we 'doddering old fools' who learnt our radar in the 1940s who even knew of Sutton and Cooke Valves/Tubes. But as a certain Kelly fellow said, "such is life"

73 from Reg VK3CAZ

BENDIGO CONVENTION

The annual pilgrimage to the Bendigo Convention, which was held in their new venue at St Mary's Hall in Castlemaine, took place on Sunday 27th April. The venue was excellent and there was a good representation of Ballarat Amateurs.

Whilst the commercial "end of town" was lacking there were plenty of traders with tables stacked with pre-loved gear and some items that they would have had to take back home!

A local ladies group met the needs of the inner person to our satisfaction with free coffee to boot. Well done ladies.

Door prizes for those who waited were good and our Reg VK3CAZ even managed to take one home. The main prize, a large basket of goodies, would have made the recipient and his XYL very happy.

No convention is complete without the meeting of the contacts that you haven't seen in the flesh for twelve months. So with the greetings, exchanging info, the idle chatter and of course the "goodies" then this must have rated as another successful convention. Good on you Bendigo, a good venue and a good show!

Bob VK3BNC